Mod. 9 Multisystem Trauma

1. **What is the definition of multiple trauma?**
   a. A trauma in which the patient has more than one serious injury.
   b. A trauma in which there are multiple casualties.
   c. A trauma that requires the response of multiple agencies.
   d. Multiple injuries that affect more than one body system.

2. **What is the definition of multisystem trauma?**
   a. Multiple injuries that affect more than one body system.
   b. Trauma in which the patient has more than one serious injury.
   c. A trauma in which there are multiple casualties.
   d. A trauma that requires the response of multiple agencies.

3. **Multiple trauma and multisystem trauma patients are situations in which the EMT is expected to perform which of the following?**
   a. Anticipate and treat problems with a greater level of complexity than usual.
   b. Provide the best quality care possible, including definitive care on-scene.
   c. Respond above and beyond the call of duty.
   d. Practice outside the scope of practice in order to provide the greatest good.

4. **What are three elements of successful trauma care that field practitioners can use which will ultimately translate into greater rates of survival?**
   a. Teamwork, timing, and transport
   b. Ground ambulances, air helicopters, and trauma centers
   c. Lights, sirens, and diesel
   d. Physiological determinants, anatomic criteria, and mechanism of injury

5. **What are some of the most important critical decisions an EMT can make on the scene of a serious trauma?**
   a. Determining patient priority, amount of time on-scene, and hospital transport decision
   b. Whether to await ALS care on-scene or begin BLS transport
   c. Load and go versus stay and play
   d. Physiological determinants, anatomic criteria, and mechanism of injury

6. **You are dispatched to a motor vehicle crash on a rural mountain highway. You have a patient who was unconscious on arrival, had a seizure, and is currently awake but combative. You suspect he may have a head injury. What is considered the BEST approach regarding transport of this patient?**
   a. Dispatch and await the medical helicopter, which is 20 minutes away.
   b. Transport to a local community hospital approximately 15 minutes away via ground.
   c. Begin transport to the trauma center on the ground, which is 1.5 hours' driving time.
   d. Dispatch the medical helicopter to meet your unit at the community hospital.

7. **What trauma triage guidelines did the Centers for Disease Control and Prevention release in order to guide the most injured patients into trauma centers?**
   a. Teamwork, timing, and transport
   b. Physiological determinants, anatomic criteria, and mechanism of injury
   c. Determining patient priority, amount of time on-scene, and hospital transport decision
   d. Lights, sirens, and diesel

8. **What is the Glasgow Coma Score (GCS) measurement of altered mental status, which according to CDC guidelines necessitates transport to a trauma center?**
   a. 12
   b. 13
   c. 8
   d. 14

9. **According to CDC guidelines, a systolic blood pressure of less than _____ indicates a patient should be transported to a trauma center.**
   a. 90
   b. 100
   c. 110
   d. 80

10. **A respiratory rate of less than _____ in infants is a significant finding and indicates a critical patient, who should be immediately transported to a trauma center if secondary to trauma.**
   a. 20
   b. 25
   c. 18
   d. 30

11. **A respiratory rate of less than _____ and greater than _____ in cases of trauma are criteria for immediate transportation to a trauma center according to the CDC physiologic guidelines.**
   a. 8; 32
   b. 10; 29
   c. 12; 20
   d. 5; 45

12. **What criteria based on the CDC guidelines allows a discretionary approach to trauma triage? For example, a patient not meeting ordinary trauma triage criteria may be transported to a trauma center based on what consideration?**
   a. Review of morbidity and mortality
   b. The CDC "No-protocol Protocol"
   c. "Golden Hour" criteria
   d. EMS provider judgment

13. **Which of the following trauma triage criteria would justify transportation to a trauma center based on mechanism of injury alone?**
   a. Vehicle rollover
   b. Vehicle crash-generated telemetry data
   c. Intrusion into the occupant area greater than 8 inches
   d. Auto versus pedestrian

14. **Which one of the following patients would justify the need to directly transport to a trauma center based on special patient considerations?**
   a. An end-stage renal disease patient who tripped and fell and is complaining of shoulder pain on the same side as his shunt
   b. An unlicensed teenage driver who has a pulse rate of 120 after a MVC and a 4 minute EMS response
   c. A pregnant female in the third trimester who is spotting (showing small amounts of vaginal bleeding) following a low mechanism of injury MVC
   d. An elderly patient on anticoagulants who slipped out of her wheelchair and is complaining of pelvic pain

15. **Based on the following presentations of patient injuries, which one would be considered MOST severe, justifying immediate transportation to a trauma center?**
   a. Midline cervical spine pain
   b. An open (compound) midshaft femur fracture
   c. Closed head injury
   d. Flail chest

16. You are dispatched to a motorcycle crash with one patient involved. What is the most important intervention to perform first?
    a. Begin chest compressions
    b. Manually stabilize the cervical spine
    c. Suction the vomit and secretions from the airway
    d. Stabilize the pelvis to a long spine board

17. Which of the following choices is NOT a justifiable reason for delaying transport of a critical trauma patient?
    a. Suctioning the airway
    b. Awaiting arrival of the patient's parents on-scene
    c. Ventilating a patient in respiratory distress
    d. Immobilizing the patient to a long spine board

18. What is the BEST option an EMT has when encountering poor BVM compliance when attempting to ventilate a patient?
    a. Begin chest compressions.
    b. Place the patient on supplemental oxygen.
    c. Address ventilation en route to the hospital or ALS intercept.
    d. Involve two people in the procedure.

19. You are dispatched to a multiple vehicle collision on a busy Interstate highway. Your crew identifies a critical patient entrapped in a small sedan with significant intrusion into the occupant area on the front and left side. One of your crew members, dressed in fully protective gear, volunteers to enter the vehicle to begin assessment and treatment. Given that access to the patient is limited, you tell him to concentrate on assessing which of the following parts of the patient's body?
    a. Head, posterior torso, and lower extremities
    b. Head, chest, and upper extremities
    c. Torso, pelvis, and lower extremities
    d. Head, chest, and torso

20. What are the three elements of the Revised Trauma Score?
    a. GCS, pulse rate, and respiratory rate
    b. GCS, systolic blood pressure, and pulse rate
    c. GCS, systolic blood pressure, and respiratory rate
    d. Level of consciousness, systolic blood pressure, and pulse rate

21. You encounter an accident on a busy intercity street while on duty. Calling into dispatch, you make note that the occupants of both vehicles are outside, and request additional units to proceed non-emergently. You approach an elderly male who is rubbing his back and left shoulder. During secondary assessment of past medical history, you make note of several important details: The patient is on high blood pressure medications, and has had a heart attack in the past. He is complaining of midline thoracic pain on palpation of his spine and left shoulder pain, which may have been from the seat belt, but is refusing care and transport. The patient did not lose consciousness. Based on this information, which transport decision would be most appropriate for this patient?
    a. Take the patient to a trauma center.
    b. Allow the patient to sign a refusal.
    c. Call for ALS intercept.
    d. Take the patient to a local community hospital.

22. Which one of the following is NOT a key decision for the EMT when faced with a multisystem or multiple trauma patient?
    a. Should I transport to a trauma center?
    b. Do I need to minimize on-scene time?
    c. Should I allow police to interview the patient on-scene?
    d. Is the patient seriously injured?

23. What is the height from which an adult fall would meet trauma triage criteria set forth by the CDC?
    a. 10 feet
    b. 25 feet
    c. 20 feet
    d. 15 feet

24. You are transporting a stable patient who was involved in a minor fall from a ladder at a height of about 10 feet to a local community hospital. You assumed full spinal precautions not only because the patient has midline back pain in the sacrum, but also because he was knocked unconscious. While transporting, the patient begins to become increasingly confused, develop an irregular respiratory rate, and experience a drop in heart rate with an increase in blood pressure. You just called in a radio report and are about 7 minutes from the hospital. A trauma center is about 10 minutes away. Which of the following is the BEST transport decision?
    a. Call medical control for advice from the trauma center.
    b. Divert to the trauma center because the patient is becoming symptomatic.
    c. Continue transporting to the local hospital because you've already given report and they accepted the patient.
    d. Continue transporting to the local hospital since it's the closest facility.

25. What type of trauma triage criteria regarding transport would a finger amputation receive?
    a. Any hospital, as long as on-line medical direction approves the facility's capabilities
    b. Any hospital with surgical facilities
    c. Trauma center
    d. The patient's choice of destination

26. What is the most important intervention an EMT can perform for an unstable multisystem trauma patient?
    a. Oxygen
    b. Airway management
    c. Cervical spine precautions
    d. Rapid transport

27. Which patient is the most unstable?
    a. An unresponsive patient with hypotension
    b. A patient who only responds to verbal stimuli
    c. An unresponsive patient with tachycardia
    d. A patient responsive to painful stimuli only

28. Which of the following is the most significant mechanism of injury for a driver in a vehicle accident?
    a. Spidering of the windshield
    b. Encroachment greater than 12 inches of the driver's compartment
    c. Death of a passenger in the same vehicle
    d. Rear-end collision

29. You are getting ready to transport an unresponsive 25-year-old female patient. She was hit by a vehicle while crossing the street. She is 26 weeks pregnant. You are 10 minutes away from the nearest facility, 15 minutes away from a Level I Trauma Center, and 15 minutes away from a hospital that specializes in high-risk obstetrics. You should transport the patient to which hospital?
    a. The nearest facility: She is unresponsive and unstable.
    b. The trauma center: The fetus will need specialized neonatology surgeons.
    c. The trauma center: The patient will need specialized trauma surgeons.
    d. The high-risk obstetric hospital: The fetus will need specialized neonatology surgeons.

30. You respond to a 32-year-old male who fell 20 feet off a ladder. He is responsive to painful stimuli. He has snoring respirations at 20 a minute with decent chest rise and fall. He has a broken femur, a broken wrist, and a lacerated radial artery that is bleeding profusely. Which of these injuries is the highest priority?
    a. The arterial bleed
    b. The snoring respirations
    c. The broken wrist
    d. The femur fracture

31. You respond to a 22-year-old male patient who fell while exiting the local bar. Bystanders state he drank at least 10 beers and could not keep his balance. Physical exam reveals that the patient is alert to verbal stimuli only. He has a Glasgow Coma Scale of 3, 4, 6; slurred speech; and an obvious scalp laceration to the back of his head. He is refusing treatment and transport and wants his friends to drive him home. The nearest hospital is 5 minutes away, a Level II Trauma Center is 10 minutes away, and a Level I Full Service Trauma Center is 30 minutes away. Which of these is the most appropriate facility for the patient?
    a. The nearest facility
    b. The Level I Trauma Center
    c. The Level II Trauma Center
    d. Nowhere, since the patient is an adult and refusing; as such, you cannot take him

32. You are on the scene of a 50-year-old male who lacerated his arm on a sheet of plate glass. He is pale, diaphoretic, and mumbling incoherently. You have controlled an arterial bleed with direct pressure. His blood pressure is 76/p, pulse 120, and respiratory rate of 28. Which of the following signs is the most concerning?
    a. The tachycardia
    b. The altered mental status
    c. The respiratory rate
    d. The blood pressure

33. Which trauma patient is the most critical?
    a. The patient with decerebrate posturing
    b. The patient with a Glasgow Coma Scale of 7
    c. The patient with decorticate posturing
    d. The patient who withdraws to painful stimuli

34. Which patient is the highest priority?
    a. A patient with a Glasgow Coma Scale of 15
    b. A patient with a Revised Trauma Score of 12
    c. A patient with a penetrating chest injury
    d. A patient with a broken femur

35. You are the first on the scene of a two-car vehicle collision. Your patient is a front passenger who is unresponsive inside the vehicle. The patient is trapped and the vehicle is on fire. The fire department is still en route. You should:
    a. perform an emergency move.
    b. perform an urgent move.
    c. use your fire extinguisher to put out the fire.
    d. have the fire department rescue the patient.

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2. a. Multiple injuries that affect more than one body system.
3. a. Anticipate and treat problems with a greater level of complexity than usual.
4. a. Teamwork, timing, and transport
5. a. Determining patient priority, amount of time on-scene, and hospital transport decision
6. a. Dispatch and await the medical helicopter, which is 20 minutes away.
7. b. Physiological determinants, anatomic criteria, and mechanism of injury
8. b. 13
9. a. 90
10. a. 20
11. b. 10; 29
12. d. EMS provider judgment
13. d. Auto versus pedestrian
14. c. A pregnant female in the third trimester who is spotting (showing small amounts of vaginal bleeding) following a low mechanism of injury MVC
15. d. Flail chest
16. b. Manually stabilize the cervical spine
17. b. Awaiting arrival of the patient's parents on-scene
18. d. Involve two people in the procedure.
19. d. Head, chest, and torso
20. c. GCS, systolic blood pressure, and respiratory rate
21. d. Take the patient to a local community hospital.
22. c. Should I allow police to interview the patient on-scene?
23. c. 20 feet
24. b. Divert to the trauma center because the patient is becoming symptomatic.
25. b. Any hospital with surgical facilities
26. d. Rapid transport
27. a. An unresponsive patient with hypotension
28. c. Death of a passenger in the same vehicle
29. c. The trauma center: The patient will need specialized trauma surgeons.
30. a. The arterial bleed
31. c. The Level II Trauma Center
32. d. The blood pressure
33. a. The patient with decerebrate posturing
34. c. A patient with a penetrating chest injury
35. d. have the fire department rescue the patient.